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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/381,243	01/21/2000	CHARLES R. HASKINS	064385-5030	3704
9629 7590 11/25/2008 MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004				
EXAMINER				
SUBRAMANIAN, NARAYANSWAMY				
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3695				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

09/381,243

**Applicant(s)**

HASKINS ET AL.

**Examiner**

Narayanswamy Subramanian

**Art Unit**

3695

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-11, 13-20, 22, 23, 45 and 46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-11, 13-20, 22, 23, 45 and 46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This office action is in response to applicant's communication of September 7, 2008. Amendments to claim 9 and cancellation of claims 1-8, 12, 21 and 24-44 have been entered. Claims 9-11, 13-20, 22-23, 45 and 46 are pending and have been examined. The rejections and response to arguments are stated below. Applicants are requested to note the Examiner's new art unit number (**AU 3695**) in their reply to this office action.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 9-11, 13-20, 22-23, 45 and 46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitations "generating a projection random number starting point for an initial year in the preselected time period", and "completing a projection method parameters file in which various parameters are identified". It is not clear how these two steps are related. Is the step of completing a projection method parameters file based on the step of generating a projection random number starting point for an initial year or are these two steps independent of each other. It is also not clear how the steps of "completing a projection method parameters file" is related to the step of "generating a random number starting point for a subsequent year". Similarly it is not clear how the last two steps of the method are related to each other and to the other steps of the method. This claim also recites the limitation "completing a projection method parameters file in which various parameters are identified" (emphasis added). It is not clear what

the Applicants mean by "various parameters". These are parameters of what object? Appropriate correction is required. Dependent claims are rejected by way of dependency on a rejected independent claim.

Dependent claims also contain steps that further limit the method of claim 9. However it is not clear after which step of claim 9 these steps are performed. The relationship between the steps of the dependent claim and independent claim is not clear. For instance in claim 15, it is not clear how the steps of inputting the average yield for each of the plurality of funds; automatically deducting a service charge; and automatically calculating the average projected yield for each of the plurality of funds are related to the steps of the independent claim. The average yield for each of the plurality of funds is already in the projection method parameters file. So it is not clear as to at what step is the average yield is input. Similarly it is not clear how automatically deducting a service charge is related to the steps of inputting the average yield and automatically calculating the average projected yield for each of the plurality of funds. Applicants are requested to correct such ambiguities in other claims in their reply to this office action.

The rejections given below are interpreted in light of the 112, second paragraph rejections above.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 9-11, 13-20, 22-23, 45 and 46 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory Subject matter.

35 USC 101 requires that in order to be patentable the invention must be a “**new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof**” (emphasis added).

Claims 9-11, 13-20, 22-23, 45 and 46 recite a process comprising the steps of determining the total numbers of years in the preselected time period, inputting initial and periodic contributions and fund allocations for the plurality of funds, generating a projection random number starting point for an initial year, completing a projection method parameters file, generating a random number starting point for a subsequent year, automatically calculating the time needed to process a projection of the accumulated investment amount for the portfolio, and automatically performing the projection. Based on Supreme Court precedent, a proper process must be tied to another statutory class or transform underlying subject matter to a different state or thing (*Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)). Since neither of these requirements is met by the claim, the method is not considered a patent eligible process under 35 U.S.C. 101. To qualify as a statutory process, the claim should positively recite the other statutory class to which it is tied, for example by identifying the apparatus that accomplished the method steps or positively reciting the subject matter that is being transformed, for example by identifying the material that is being changed to a different state. As discussed in the 112 rejections above there is no description of the system to ascertain to which statutory category the system belongs. The steps of the method are untied to another category of statutory subject matter and hence the claimed invention does not qualify as a

process under 35 U.S.C 101. The dependent claims are rejected for the same reason and by way of dependency on a rejected independent claim.

Claims 9-11, 13-20, 22-23, 45 and 46 are drawn to “a method for projecting an accumulated investment amount for a portfolio having a plurality of funds over a preselected time period”. As such the claimed invention is directed to a judicial exception to 35 U.S.C. 101 (i.e., an abstract idea, natural phenomenon, or law of nature) and is not directed to a practical application of such judicial exception because the claims do not require any physical transformation and the invention as claimed does not produce a useful, concrete, and tangible result. It is not clear what useful, concrete, and tangible result is produced by automatically performing the projection of the accumulated investment amount for the portfolio having the plurality of funds.

The Court of Appeals for the Federal Circuit issued opinions in *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F. 3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998) and *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 50 USPQ2d 1447 (Fed. Cir. 1999). These decisions explained that, to be eligible for patent protection, the claimed invention as a whole must accomplish a practical application. That is, it must produce a “useful, concrete and tangible result.” *State Street*, 149 F.3d at 1373-74, 47 USPQ2d at 1601 02. To satisfy section 101 requirements, the claim must be for a practical application of the § 101 judicial exception, which can be identified in various ways: (a) The claimed invention “transforms” an article or physical object to a different state or thing. (b) The claimed invention otherwise produces a useful, concrete and tangible result, based on the factors discussed below.

The USPTO's official interpretation of the utility requirement provides that the utility of an invention has to be (i) specific, (ii) substantial and (iii) credible. See MPEP § 2107. The only positively recited steps are the steps of recording information. It is not clear as to what is the specific, substantial and credible utility of automatically performing the projection of the accumulated investment amount for the portfolio having the plurality of funds.

The tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had “no substantial practical application”). It is not clear as to what real-world result is produced by implementing the steps of the claimed invention.

For an invention to produce a “concrete” result, the process must have a result that can be substantially repeatable or the process must substantially produce the same result again. In re Swartz, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000) (where asserted result produced by the claimed invention is “irreproducible” claim should be rejected under section 101). The opposite of “concrete” is unrepeatable or unpredictable. The steps of the claimed method are not specific enough (as discussed in the 112, second paragraph rejection above) to guarantee that the results are repeatable. Also the steps of the method are interpreted to be performed manually. The manual performance of the steps along with the lack of specificity leads to results that are non-concrete.

There is no useful, concrete and tangible result produced from implementing the steps of the claimed invention. The dependent claims are rejected for the same reason and by way of dependency on a rejected independent claim.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9-11, 13-18, 22-23, 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfberg et al. (US Patent 5,214,579) in view of Edesess (US Patent 5,884,287).

Claim 9, Wolfberg teaches a method for projecting an accumulated investment amount for a portfolio having a plurality of funds over a preselected time period, comprising the steps of: determining the total numbers of years in the preselected time period (See the entire disclosure of Wolfberg especially Column 4 line 66 – Column 5 line 2); inputting initial and periodic contributions and fund allocations for the plurality of funds (See the entire disclosure of Wolfberg especially Column 1 lines 55-60); automatically calculating the time needed to process a projection of the accumulated investment amount for the portfolio having the plurality of funds (See the entire disclosure of Wolfberg especially Column 1 lines 60-67); automatically performing a projection of the accumulated investment amount for the portfolio having the plurality of funds (See the entire disclosure of Wolfberg especially Column 1 lines 60-67).

Wolfberg does not explicitly teach the steps of generating a projection random number starting point for an initial year in the preselected time period; generating a random number starting point for a subsequent year in the preselected time period based upon the random



number starting point for the initial year; completing a projection method parameters file in which various parameters are identified, including a standard deviation of return for the plurality of funds, an average yield for the plurality of funds, and a probability that the average yield for the plurality of funds will exceed a projected yield in any year.

Edesess discloses the feature completing a projection method parameters file in which various parameters are identified, including a standard deviation of return for the plurality of funds, an average yield for the plurality of funds, and a probability that the average yield for the plurality of funds will exceed a projected yield in any year (See the entire disclosure of Edesess especially abstract, Figures 2-6, Column 1 lines 40-52).

It would have been obvious to one of ordinary skill in the art at the time of invention to include the teachings of Edesess to the disclosure of Wolfberg to create an optimal investment plan given wealth goals stated in probabilistic form. An investor can then see the overall risk related to overall return across an entire distribution.

Official notice is taken that generating a projection random number starting point and generating another random number starting point based upon the random number starting point is old and well known in the art of simulation/modeling. This ensures that the logic of the simulation/modeling is maintained. For instance ensuring that the initial year is before the final year when one is projecting values into the future.

It would have been obvious to one of ordinary skill in the art at the time of invention to include these steps to the disclosure of Wolfberg. An user can then ensure that the assumptions and logic of the simulation/modeling is maintained.

Claims 10-11, Official notice is taken that funds comprising select funds and variable annuities are old and well known. These investments help in diversification of risk and in matching the return objectives of investors. It would have been obvious to someone skilled in the ordinary art to include these features to the invention of Wolfberg because they help in diversification of risk and in matching the return objectives of investors.

Claim 13, Wolfberg discloses the feature that if the user interrupts the step of automatically performing a projection of the accumulation amount for the plurality of funds, automatically presenting completed projections (See the entire disclosure of Wolfberg especially Column 1 lines 60-67 and Column 9 lines 26-30).

Claim 14, Wolfberg discloses the step of automatically prompting the user prior to performing the step of automatically calculating a projection completion time. In the Wolfberg disclosure, the user is prompted to validate his or her identity before performing any requested services. In this way the system is protected against possible fraudulent use.

Claim 15, Edesess discloses inputting the average yield for each of the plurality of funds; automatically deducting a service charge; and automatically calculating the average projected yield for each of the plurality of funds (See the entire disclosure of Edesess especially Column 5 lines 37-45).

Claim 16, Edesess discloses the steps of: inputting data for the projection (See the entire disclosure of Edesess especially Column 5 lines 15-22); automatically performing a distribution model (See the entire disclosure of Edesess especially Column 2 lines 31-40).

Claim 17, Edesess discloses the step of automatically performing a projection of the accumulation amount for the plurality of funds further comprising the steps of: inputting data for

the projection (See the entire disclosure of Edesess especially Column 5 lines 15-22). While Edesess does not explicitly disclose setting a yield equal to the index performance for a predetermined number of simulations, this step would be obvious to someone skilled in the ordinary art. The reason an investor would use a system such as this would be with the goals of receiving a higher yield on their money than the standard index. If the user was looking to achieve were the yield of the index, then they would not need this system but rather would simply invest their assets evenly across the board. The higher yield is what would motivate them to use an investment management system. Automatically performing a distribution model for the number of simulations greater than the predetermined number would increase the investor's confidence in the results of the simulation.

Claim 18, Edesess discloses the steps of: inputting an average annual return on each investment and a standard deviation for the average annual return; automatically performing a normal distribution random projection of annual return; automatically deducting a predetermined percentage of annual yield from the projection of annual return; automatically performing a distribution model to generate multiple accumulation amounts (See the entire disclosure of Edesess).

Claim 22, the feature wherein the random distribution simulation includes a Monte Carlo simulation is old and well known. This simulation is useful generating values for investment projections based on values of the input variables.

Claim 23, Wolfberg in view of Edesess disclose the claimed method 18 as previously stated. While the references do not explicitly disclose wherein the plurality of funds includes at least one index fund, it was well known in the art at the time of invention to use index funds as

investment vehicles. Therefore it would have been obvious to someone skilled in the ordinary art at the time of invention to use an index fund, because they provide instant diversification of a portfolio, and provide a good basis for comparison because they are designed to track the movement of particular indices (i.e. S&P 500 index funds).

Claims 45 and 46, Wolfberg discloses automatically determining the accumulated investment amount for the pre selected time period. The references do not explicitly disclose discounting the accumulated investment amount by a reserve interest rate and using a reserve investment rate or determining a present value of a future guarantee charge for the accumulate investment amount. However it was well known to anyone skilled in the ordinary art that both discounting an investment using an interest rate or reserve investment rate and finding the present value of a future value were common practices in the financial community. An investment manager would be motivated to discount the accumulated investment amount by certain factors to get a better understanding of the current market value of the investment as opposed to the redemption value (guaranteed amount). In the same manner, taking the present value of known future charges allows these charges to be factored into the present accumulation amount to get a better understanding of the "real" value of the current investment and helps to determine how much money needs to be invested currently to achieve the desired future value (guaranteed amount).

8. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfberg et al. (US Patent 5,214,579) in view of Edesess (US Patent 5,884,287) and further in view of Lane et al. Reference.

Claims 19 and 20, Wolfberg in view of Edesess teach the claimed method 9 as stated previously. Lane discloses inputting a number of scenarios and number of simulations (See Lane Page 107, lines 10-15); automatically generating a random number for a first simulation (See Lane Page 103, lines 12-17; inputting projection method factors (See Lane Page 107, lines 17-23); automatically generating a first simulation result for a random distribution model (See Lane Page 104, lines 1-5); automatically generating a new random number from the first random number (See Lane Page 104, lines 5-13); automatically generating a new simulation result for the random distribution model (See Lane Page 104, lines 5-13).

While Lane does not explicitly disclose automatically repeating steps e (automatically generating a new random number) and f (automatically generating a new simulation) a number of times equal to the number of simulations inputted less two simulations, official notice is taken that it was well known in the art at the time of invention to run a simulation a number of times and that the number of times can be set by the operator. Therefore it would have been obvious to someone skilled in the ordinary art at the time of invention to run the Lane simulation multiple times, in order to compare the risks of investment decisions.

Lane also discloses automatically inputting the output of step g as the average yield for each of a plurality of funds (See Lane Page 105, Table 2); automatically calculating the average projected yield for each of the plurality of funds (See Lane Page 106, Table 3, Forecast Yields); automatically generating a first simulation result for the random distribution model for a new simulation (See Lane Page 103, lines 12-17) and; automatically repeating steps e through j a number of times equal to the number of scenarios inputted less one scenario to produce outcomes for each of the plurality of scenarios (See Lane Page 105-106, Tables 2 and 3).

***Response to Arguments***

9. Applicant's other arguments with respect to pending claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are listed on the attached form PTO-892.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Narayanswamy Subramanian whose telephone number is (571) 272-6751. The examiner can normally be reached Monday-Thursday from 8:30 AM to 7:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached at (571) 272-6771. The fax number for Formal or Official faxes and Draft to the Patent Office is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PMR or Public PAIR. Status information for unpublished applications is available through Private PMR only. For more information about the PMR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Narayanswamy Subramanian/  
Primary Examiner  
Art Unit 3695

November 24, 2008